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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,003

04/12/2004

Masahiko Sugimoto

F02-167191C/FK

1589

21254

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02/17/2009

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EXAMINER

MOTSINGER, SEAN T

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

02/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,003	Applicant(s) SUGIMOTO, MASAHIKO	
	Examiner SEAN MOTSINGER	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-17 and 22--26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 9-11, 14 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Applicants Arguments/Amendments

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/26/2008 has been entered.

Applicants arguments/amendments with respect to the prior art have been fully considered but are moot in view of new grounds of rejection.

Rejections Under 35 U.S.C. 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1-2, 6, 9, 22-23, 25-26 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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(1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the steps of these claims could be performed manually or by mental steps.

Rejections Under 35 U.S.C. 10

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, 10, 14 and 22-26 rejected under 35 U.S.C. 103(a) as being rendered obvious by Chetverikov, Dmitry, November 6 2001 <http://www.inf.u-szeged.hu/~ssip/2001/handouts/chetverikov/by> in view of Matsugu US 6,636,635.

Re claim 1 Chetverikov discloses A method for detecting whether an image of a characteristic portion exists in an image to be processed, comprising: sequentially cutting images of a required size from the image to be processed (page 1 column 1);

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and comparing the cut images with verification data corresponding to the image of the characteristic portion (page 1 column 1),

Matsugu discloses wherein a limitation is imposed on a size range of a search window for the image of the characteristic portion with reference to the size of the image to be processed (column 47 lines 50-67), based on information about a distance between a subject and a location of imaging the subject (column 47 lines 50-67), obtained when the image to be processed has been photographed (column 47 lines 50-67), thereby limiting the size of the cut images to be compared with the verification data. (column 47 lines 50-67)

Re claim 2 Matsugu discloses wherein the limitation is effected through use of information about a focal length of a photographing lens in addition to the information about a distance to the subject (column 47 lines 50-67).

Re claim 6 Chetverikov wherein the verification data comprises template image data pertaining to the image of the characteristic portion (page 1 column 1).

Re claim 10, claim 10 claims computer readable medium embodying a program performing the steps of claim 1. Claim 10 is likewise rejected.

Re claim 14 Matsugu discloses determining the distance information used in said limiting size range (distance information column 45 lines 50-67).

Re claim 22 Chetverikov discloses comparing the cut images with verification data corresponding to the image of the characteristic portion (page 1 column 1),

Matsugu discloses imaging a subject at a location to form an image to be processed and obtaining information about a distance between said subject and said location (distance information column 45 lines 50-67)

using said information to set upper and lower bounds on a size range of a search window for the image of the characteristic portion with reference to the size of the image to be processed (column 47 lines 50-67),

cutting plural images having a predetermined size from said image to be processed a size of said cut images being limited based on said upper and lower limitations on said size range of said search window (column 47 lines 50-67). The motivation to combine is to reduce calculation time column 6 lines 25-27. Therefore it would have been obvious to combine Chetverikov with Matsugu to reach the aforementioned advantage.

Re claim 23 Magsugu discloses wherein said distance between said subject and said location of said image said subject is determined during said image said subject (column 47 lines 50-67).

Re claim 24 Matsugu discloses wherein said imaging said subject is performed by using an imaging device comprising a range sensor (two cameras) and said distance being determined based on a signal from said range sensor (column 47 lines 50-67)

Re claim 25 Chetverikov discloses wherein said comparing the cut images with verification data comprises computing a degree of matching between said image to be processed and said template data by determining a normalizing cross-correlation function between an image cut by said search window and said template data (page 1 column 1).

Re claim 26 Chetverikov discloses shifting said search window in a scanning direction if said degree of matching does not reach a threshold value (page 1 column 1),

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chetverikov and Matsugu in view of Roundhill et US 6447453

Chetverikov and Matsugu discloses the elements of claim 1.

Roundhill discloses the comparison is performed through use of a resized image into which the image to be processed has been resized (column 4 lines 1-20).

It would have been obvious to one of ordinary skill in this art at the time of invention to modify the matching method of Chetverikov and Matsugu to include the

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step of resizing the image when performing the comparison for increasing speed
(Chetverikov and Matsugu column 4 lines 1-20)

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chetverikov and Matsugu in view of U.S. Patent Number 6,580,810 issued to Yang et al. ("Yang"). figures 7a and 7b

For claim 9, Chetverikov and Matsugu discloses the elements of base claim 1.

Yang discloses limiting a range in which an image of a characteristic portion of a second image to be processed followed by a first image to be processed, is retrieved through use of the information.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the matching method of Chetverikov and Matsugu to limit the size of the search window for the benefit of being more precise in matching as taught by Yang at col. 6 line 66 through col. 7 line 14.

Claim 11, which contains elements similar to claim 9, is rejected for the reasons given in the rejection of claim 9.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN MOTSINGER whose telephone number is (571)270-1237. The examiner can normally be reached on 9-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571)272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/
Supervisory Patent Examiner, Art Unit 2624

Motsinger
2/10/2009